(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 0 894 887 A3

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
17.05.2000 Bulletin 2000/20

(43) Date of publication A2:
03.02.1999 Bulletin 1999/05

(21) Application number: **98113742.5**

(22) Date of filing: **23.07.1998**

(51) Int. Cl.[7]: **D06B 11/00**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **28.07.1997 IT PC970016**

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(54) Process for making patterns on clothing articles

(57) The invention relates to a method for making localized or non localized folds, curls, patterns, etc. having a casual shape on ready-to-wear clothing articles. For this purpose, according to the invention curling means (3) are applied along the garment seams (2) and the so curled garment (1) is subjected to treatments such as fading, dyeing, sand blasting, scratching, brushing, "stone-washing", etc., acting only or mainly on the exposed fabric areas and to a less extent or to no extent at all on the inward curl areas, to determine the desired final effect.

The curl, obtained by means of any suitable material, e.g. strings, threads, elastic bands, clips or the like being applied on the seams (2), can be made on the whole garment (1) or just a part thereof (for instance in the case of trousers a "wear" or light-and-shade effect can be achieved by making folds or the like, for example only in the knee area).

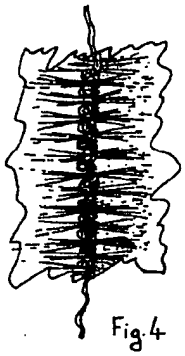

Fig. 4

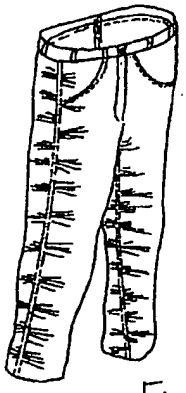

Fig. 5

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EUROPEAN SEARCH REPORT

Application Number
EP 98 11 3742

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
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			D06B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	10 March 2000	Goodall, C

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 98 11 3742

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The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

10-03-2000

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 292 178 A1**

(12) EUROPEAN PATENT APPLICATION

(21) Application number: **88304221.0**

(51) Int. Cl.[4]: **D06B 11/00 , D06L 3/00**

(22) Date of filing: **10.05.88**

(30) Priority: **21.05.87 GB 8712083**

(43) Date of publication of application:
23.11.88 Bulletin 88/47

(84) Designated Contracting States:
BE DE ES FR GB IT

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(54) Colour fading of material.

(57) Cloth material such as blue jeans are colour faded by contact with a bleaching agent which, according to the invention, is present in the pores of a preformed carrier having a density of about 1 and a porosity of about 40% to about 65%.

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COLOUR FADING OF MATERIAL

The invention relates to colour fading of material, such as coloured denim cloth, e.g. fading blue jeans. It is known to use a bleaching agent for this purpose, and various bleaching compositions have been proposed for use in fading the jeans either in a water wash or in the absence of a liquid medium. It is known from BE-A-905631 and its equivalent EP-A-0238779 to impregnate the bleaching agent into granules of coarse permeable material such as pumice stones. Such material is natural and is of variable properties as a result of which the colour fading cannot be controlled. It is also known from GB-A-1459973 to locate particles of solid bleach in the pores of a polyurethane foam. An article in the November 1986 issue of the Manufacturing Clothier, pages 27 to 31, points out that alternatives to pumice stone have been tried, and mentions soft sandstone to artificial types made from ceramics and artificial stones. The use of these alternatives is discouraged, because of cost and because they are more severe on the washing machine.

It is one object of the invention to provide an improved means for carrying the bleaching agent into contact with the material, in particular in control of bleaching and level of abrasiveness.

According to one aspect of the invention there is provided a method of colour fading a material such as coloured denim, e.g. blue jeans, comprising contacting the material with a bleaching agent therefor, the bleaching agent being present in the pores of a porous carrier,characterisedinthat the bleaching agent is present in a preformed refractory carrier having a density of less than about 1 and a porosity of about 40% to 65%.

In one preferred method, the material and the carrier are tumbled together in the absence of a liquid medium. In another preferred method, the material and the carrier are contacted together in a water medium.

In another aspect, the invention provides a method of making a preformed carrier for a bleaching agent for use in colour fading a material such as coloured denimcharacterisedby mixing together a refractory material and a temporary filler to form a low density mix, adding a temporary binder, making a shape of the resultant bonded mix, burning off the binder and the temporary filler to form a porous carrier having a density of below about 1 and a porosity of about 40% to about 65%, and then introducing the bleaching agent into the carrier.

Preferably, the mix of refractory material and the temporary filler are mixed with the temporary binder to form a mix which is extruded and/or briquetted. Preferably the temporary filler is carbonaceous, e.g. napthalene, coal, coke, walnut stone, olive stone or the like. Preferably the refractory material is a clay such as ball clay, or a grog, or the like. A fibrous material such as wollastonite may be present. Conveniently, the temporary binder is water.

In order that the invention may be well understood it will now be descibed by way of example with reference to the following examples in which parts are by weight.

Example 1

A mix of

ball clay	30
wollastonite	30
napthalene	40

was blended with water to form a moist mix which was extruded and then briquetted. The formed briquettes were fired at 1200°C to form briquettes having a density of about 1 and a porosity as measured by water absorption of 40% to 65%.

The briquettes were soaked in bleaching agent, lightly drained and then used to colour fade blue jeans by being tumbled dry until the jeans had a marbled finish. It was observed that the jeans were uniformly coloured i.e. there was no colour streaking. The briquettes could be reloaded with the bleaching agent after all the bleaching agent therein was used up.

Example 2

Comparative tests were done comparing briquettes according to Example 1 and pumice briquettes which are used for colour fading jeans.

When both briquettes were soaked in the same bleaching agent it was observed that

(i) the rate of uptake of the briquette of Example 1 was faster

(ii) the total uptake, measured by weight, of the briquette of Example I was about 50% greater than that of the pumice.

The briquettes were subjected to a surface abrasive test and it was noted that there was less weight loss in the case of the briquette of Example 1.

These results show that the briquettes of Example 1 can carry more bleaching agent and yet will last longer than pumice. Because the briquettes are produced to a preformed standard, it was noted

that there was no variability between them, in the way that happens with pumice whose uptake of bleaching agent can vary substantially.

Claims

1. A method of colour fading a material such as coloured denim cloth, e.g. blue jeans, comprising contacting the material with a bleaching agent therefor, the bleaching agent being present in the pores of a porous carrier, characterised in that the bleaching agent is present in a preformed refractory carrier having a density of less than about 1 and a porosity of about 40% to 65%.

2. A method according to Claim 1 characterised in that the material and the preformed refractory carrier are tumbled together in the absence of a liquid medium.

3. A method according to Claim 1 characterised in that the material and the preformed refractory carrier are contacted together in a water medium.

4. A method of making a preformed refractory carrier containing a bleaching agent for use in colour fading a material such as coloured denim characterised by mixing together a refractory material and a temporary filler to form a low density mix, adding a temporary binder, making a shape of the resultant bonded mix, burning off the binder to form a porous carrier having a density of below about 1 and a porosity of about 40% to about 65%, and then introducing the bleaching agent into the carrier.

5. A method according to Claim 4 characterised in that the mix of refractory material and the temporary filler are mixed with water as a temporary binder to form a moist mix which is extruded and briquetted.

6. A method according to Claim 4 or 5 characterised in that the temporary filler is carbonaceous.

7. A method according to Claim 4, 5 or 6 characterised in that the filler is a naphthalene, coal, coke, walnut stone or the like.

8. A method according to any of Claims 4 to 7 characterised in that the refractory material is a clay, or the like.

9. A method according to Claim 8 characterised in that the clay is a ball clay, grog or the like.

10. A method according to any of Claims 4 to 9 characterised in that the mix is fired at about 1200°C to burn off the temporary filler and the binder.

11. A method according to any of Claims 4 to 10 characterised in that a reinforcing fibrous material is present.

12. A method according to Claim 11 characterised in that wollastonite is present.

13. A preformed refractory carrier when made by a method according to any of Claims 4 to 12.

14. Denim material e.g. blue jeans, whenever colour faded by a method according to Claim 1, 2 or 3.

European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 88 30 4221

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
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D,A	FR-A-2 259 179 (THE PROCTER & GAMBLE CO.) * Page 3, lines 19-40; page 4; page 9, lines 1-14 *	1,2,14	
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	12-08-1988	D HULSTER E.W.F.

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X : particularly relevant if taken alone
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